

CLAIMS

What is claimed is:

- 5 1. A miniature motor structure, comprising :
 a stator, further comprising :
 a first coil seat, including a first bottom plate, a
 plurality of first outer teeth, a plurality of first inner
 teeth ;
10 a coil, formed in the first coil seat ;
 a second coil seat, including a second bottom plate, a
 plurality of second outer teeth, a plurality of second
 inner teeth, said second coil seat formed on the first coil
 seat, each of said second outer teeth interposed between
 said adjacent first outer teeth, each of said second inner
 teeth interposed between said adjacent first inner teeth ;
15 a circular magnet, surrounding said stator ; and
 a shift, coupled to said stator.
- 20 2. The miniature motor structure according to claim 1,
 wherein said first bottom plate further includes a first
 central opening, said first outer teeth protruding form said
 first bottom plate and surrounding an outer periphery of
 said first bottom plate, said first inner teeth protruding
25 form said first bottom plate and surrounding said first
 central opening.
- 30 3. The miniature motor structure according to claim 1,
 wherein said second bottom plate further includes a second
 central opening, said second outer teeth protruding form

said second bottom plate and surrounding an outer periphery of said second bottom plate, said second inner teeth protruding form said second bottom plate and surrounding said second central opening.

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4.The miniature motor structure according to claim 1, further ~~comprises~~ a metal housing surrounding said circular magnet and used to avoid magnetic leakage.

10 5.The miniature motor structure according to claim 1, wherein said first coil seat and said second coil seat are made of silicon steel.

15 6.The miniature motor structure according to claim 1, wherein said coil is positioned in a space defined by said first coil seat and said second coil seat.

7.The miniature motor structure according to claim 1, wherein said coil is preformed.

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8.The miniature motor structure according to claim 1, wherein said coil is wound around a post consisting of said first coil seat and said second coil seat.

25 9.The miniature motor structure according to claim 1, wherein said first inner teeth and said second inner teeth further comprise a cut corner.

30 10.The miniature motor structure according to claim 1, wherein said first inner teeth and said second inner teeth

further comprise an arc.

11. The miniature motor structure according to claim 1,
wherein said first inner teeth and said second inner teeth
5 further comprise a gap.

12. A miniature motor structure, comprising :
a stator, further comprising :

10 a first coil seat, including a first bottom plate, a plurality of first outer teeth, a plurality of first inner teeth, said first bottom plate further including a first central opening, said first outer teeth protruding from said first bottom plate and surrounding an outer periphery of said first bottom plate, said first inner teeth protruding from said first bottom plate and surrounding said first central opening ;

15 a coil, formed in the first coil seat ;

20 a second coil seat, including a second bottom plate, a plurality of second outer teeth, a plurality of second inner teeth, said second coil seat formed on the first coil seat, said second bottom plate further including a second central opening, said second outer teeth protruding from said second bottom plate and surrounding an outer periphery of said second bottom plate, said second inner teeth protruding from said second bottom plate and surrounding said second central opening, each of said second outer teeth interposed between said adjacent first outer teeth, each of said second inner teeth interposed between said adjacent first inner teeth ;

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a circular magnet, surrounding said stator ;
a metal housing, surrounding said circular magnet ; and
a shift, coupled to said stator.

- 5 13.The miniature motor structure according to claim 12,
 wherein said first coil seat is identical to said second coil
 seat.
- 10 14.The miniature motor structure according to claim 12,
 wherein said first coil seat and said second coil seat are
 made of silicon steel.
- 15 15.The miniature motor structure according to claim 12,
 wherein said coil is positioned in a space defined by said
 first coil seat and said second coil seat.
- 20 16.The miniature motor structure according to claim 12,
 wherein said coil is preformed.
- 25 17.The miniature motor structure according to claim 12,
 wherein said coil is wound around a post consisting of
 said first coil seat and said second coil seat.
- 30 18.The miniature motor structure according to claim 12,
 wherein said first inner teeth and said second inner teeth
 further comprise a cut corner.
- 19.The miniature motor structure according to claim 1,
 wherein said first inner teeth and said second inner teeth
 further comprise an arc.

20. The miniature motor structure according to claim 1,
wherein said first inner teeth and said second inner teeth
further comprise a gap.

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